SCOPE: DUAL-POWER MOSFET DRIVER

Device Type	Generic Number
01	ICL7667M(x)/883B

Case Outline(s). The case outlines shall be designated in Mil-Std-1835 and as follows:

Outline Letter	Mil-Std-1835	Case Outline	Package Code
TV	MACY1-X8	8 LEAD CAN	TO99
JA	GDIP1-T8 or CDIP2-T8	8 LEAD CERDIP	J8

Absolute Maximum Ratings

V_{DD} to GND 18V
Input Voltage ..... (V_{DD} +0.3V) to (GND -0.3V)
Lead Temperature (soldering, 10 seconds) ..... +300°C
Storage Temperature ..... -65°C to +150°C

Continuous Power Dissipation ..... T_A=+70°C
8 lead CERDIP(derate 8.0mW/°C above +70°C) 640mW
8 lead CAN (derate 6.7mW/°C above +70°C) 533mW
Junction Temperature T_J ..... +150°C
Thermal Resistance, Junction to Case, ΘJC:
Case Outline 8 lead CERDIP..... 55°C/W
Case Outline 8 lead CAN..... 45°C/W
Thermal Resistance, Junction to Ambient, ΘJA:
Case Outline 8 lead CERDIP..... 125°C/W
Case Outline 8 lead CAN ..... 150°C/W

Recommended Operating Conditions.

Ambient Operating Range (T_A) ..... -55°C to +125°C
V_{DD} ..... +4.5Vdc to 15.5Vdc

Stresses beyond those listed under "Absolute Maximum Ratings" may cause permanent damage to the device. These are stress ratings only, and functional operation of the device at these or any other conditions beyond those indicated in the operational sections of the specifications is not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

TABLE 1. ELECTRICAL TESTS

TEST	Symbol	CONDITIONS -55 °C <=T_A<= +125°C V_{DD}=+15V Unless otherwise specified	Group A Subgroup	Device type	Limits Min	Limits Max	Units
SWITCH							
Logic 1 Input Voltage	V_{IH}	V_{DD}=4.5V to 17V	1,2,3	All	2.0		V
Logic 0 Input Voltage	V_{IL}	V_{DD}=4.5V to 17V	1,2,3	All		0.8	V
Input Current	I_{IN}	V_{IN}=0V to 15V	1,2,3	All	-0.1	0.1	µA
Output Voltage High	V_{OH}	V_{DD}=15V, no load	1,2,3	All	14.95		V
Output Voltage Low	V_{OL}	V_{DD}=15V, no load	1,2,3	All		0.05	V
Output Resistance	R_{OUT}	V_{IN}=V_{IL}, I_{OUT}=10mA	1 2,3	All		10 15	Ω
Output Resistance	R_{OUT}	V_{IN}=V_{IH}, I_{OUT}=-10mA	1 2,3	All		12 20	Ω
Power-Supply Current	I_{DD}	V_{IN}=0V, both inputs	1,2,3	All		0.4	mA
		V_{IN}=3V, both inputs	1 2,3	All		7 8	
Delay Time	t_{D1}	Figure 1	9 10,11	All		30 40	ns
	t_{D2}	Figure 1	9 10,11	All		50 60	ns
Rise Time	t_R	Figure 1	9 10,11	All		30 40	ns
Fall Time	t_F	Figure 1	9 10,11	All		30 40	ns

FIGURE 1: Timing Diagram/Test Circuit. See Commercial Datasheet.

ORDERING	INFORMATION:			Terminal	ICL7667	ICL7667
	Maxim #	**Pkg.**		**Number**	J8	TO99
	ICL7667MJA/883B	J8		1	NC	OUTA
	ICL7667MTV/883B	TO99		2	INA	NC
				3	V-	INA
				4	INB	V-
				5	OUTB	INB
				6	V_{DD}	NC
				7	OUTA	OUTB
				8	NC	V_{DD}

QUALITY ASSURANCE

Sampling and inspection procedures shall be in accordance with MIL-Prf-38535, Appendix A as specified in Mil-Std-883.

Screening shall be in accordance with Method 5004 of Mil-Std-883. Burn-in test Method 1015:

1. Test Condition, A, B, C, or D.
2. TA = +125°C minimum.
3. Interim and final electrical test requirements shall be specified in Table 2.

Quality conformance inspection shall be in accordance with Method 5005 of Mil-Std-883, including Groups A, B, C, and D inspection.

Group A inspection:

1. Tests as specified in Table 2.
2. Selected subgroups in Table 1, Method 5005 of Mil-Std-883 shall be omitted.

Group C and D inspections:

a. End-point electrical parameters shall be specified in Table 1.
b. Steady-state life test, Method 1005 of Mil-Std-883:
   1. Test condition A, B, C, D.
   2. TA = +125°C, minimum.
   3. Test duration, 1000 hours, except as permitted by Method 1005 of Mil-Std-883.

TABLE 2. ELECTRICAL TEST REQUIREMENTS

Mil-Std-883 Test Requirements	Subgroups per Method 5005, Table 1
Interim Electric Parameters Method 5004	1
Final Electrical Parameters Method 5005	1*, 2, 3, 9
Group A Test Requirements Method 5005	1, 2, 3, 9, 10, 11
Group C and D End-Point Electrical Parameters Method 5005	1

* PDA applies to Subgroup 1 only.